

Appl. No. 10/049,947
Amtd. Dated March 1, 2004
Reply to Office Action of August 29, 2003

AMENDMENTS TO THE SPECIFICATION

Please replace pages 1, 3 and 4 of the specification with the replacement pages included herein.

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(PCT/IB00/01377)

Description

COMPONENT FOR ASSEMBLY ON A PRINTED CIRCUIT BOARD

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a device according to the generic clause of claim 1, i.e. to a component for mounting on a printed circuit board, comprising a multiplicity of electrical terminal members for connection to the circuit board.

Description of Related Art

Such a component is, for example, the electrical connector shown in Fig. 5. The electrical connector shown consists in essence of contact elements, not shown in Fig. 5, for connecting the electrical connector to another electrical connector, a housing 1 enclosing the contact elements, electrical terminal members 2 extending out of housing 1 for soldering the electrical connector to a printed circuit board LP, and an alignment plate 3.

By means of the alignment plate 3, the electrical terminal members 2 of the electrical connector are held in a predetermined relative position. As regards further details of alignment plate 3, reference is made to document DE 197 54 877 A1.

Holding of the electrical terminal members in a predetermined relative position is of advantage in particular when the electrical connector is a component for surface mounting, i.e. when the electrical terminal members are so-called SMT contacts.

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face mounting. In this case, too, the use of an alignment plate or the like may turn out to be advantageous.

However, the manufacture and in particular the mounting of such alignment plates involve a not inconsiderable expenditure

OBJECT OF THE INVENTION

It is thus the object of the present invention to develop the component according to the generic clause of claim 1 in such a manner that the electrical terminal members thereof can be reliably and permanently fixed in an exact, predetermined relative position with minimum expenditure.

BRIEF SUMMARY OF THE INVENTION

According to the invention, this object is met by the feature claimed in the characterizing part of claim 1.

According to the latter, it is provided that a plurality of electrical terminal members is fixed in a predetermined relative position by a plastics body that is injection-molded to said terminal members.

Fixing of the terminal members in a predetermined relative position by injection-molding of a plastics body to the previously aligned terminal members can be effected in considerably simpler manner than the manufacture and mounting of an alignment plate or the like. Furthermore, terminal members fixed by a molded-on plastics body are fixed in considerably exacter and safer manner than in case of utilization of alignment plates or the like.

With a component designed as claimed, the electrical terminal members can be reliably and permanently fixed in an exact, predetermined relative position with minimum expenditure.

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Advantageous developments of the invention are set forth in the dependent claims, the following description and the figures.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be elucidated hereinafter in more detail with reference to the drawings wherein

Fig. 1 shows a side view of an electrical connector described in more detail hereinafter;

Fig. 2 shows a front view of the electrical connector shown in Fig. 1;

Fig. 3 shows a sectional side view of the electrical connector shown in the preceding figures (section along the line III-III in Fig. 2),

Fig. 4 shows a bottom view of the electrical connector shown in the preceding figures, and

Fig. 5 shows a conventional electrical connector

DETAILED DESCRIPTION OF THE INVENTION

The component with respect to which the invention will be described in more detail hereinafter is an electrical connector. However, it is to be pointed out already here that the special features of the electrical connector described in more detail hereinafter can be applied to other components as well.

The electrical connector illustrated in more detail herein comprises a multiplicity of electrical terminal members to be soldered to the printed circuit board. The special features of the electrical connector described in more detail hereinafter, however, may also be employed with other components connected to the circuit board other than by soldering.